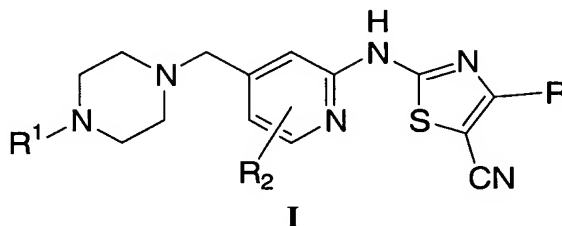


WHAT IS CLAIMED IS:

1. A process for preparing a compound of Formula I:



- 5 or a pharmaceutically acceptable salt or stereoisomer thereof,
wherein

R is H, unsubstituted or substituted C₁-C₁₀ alkyl or unsubstituted or substituted aryl;

R¹ is -C(=O)NR³H;

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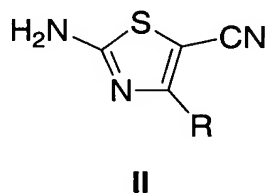
R² is

- 1) H,
2) OH,
3) OC₁-C₆ alkyl,
15 4) C₁-C₆ alkyl, or
5) halo; and

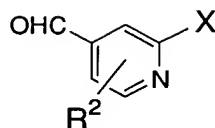
R³ is C₁-C₆ alkyl;

- 20 which comprises the steps of:

- a) preparing a slurry of a compound of Formula II



(where R is defined above), a compound of Formula III

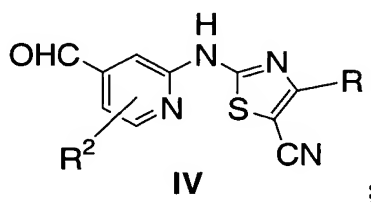


III

(where X is a halo and R² is defined above) and a base in a solvent;

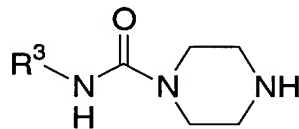
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- b) adding a palladium catalyst and a bisphosphine ligand to the slurry to produce a coupling product of Formula IV



IV

- c) adding a piperazine-urea of Formula V



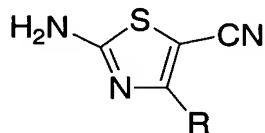
V

10

- to the coupling product of Formula IV; and
d) completing a reductive amination to produce the compound of Formula I.

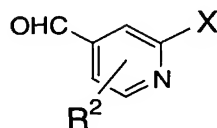
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2. The process according to Claim 1 comprising the steps of:
a) preparing a slurry of a compound of Formula II



II

(where R is defined above), a compound of Formula III

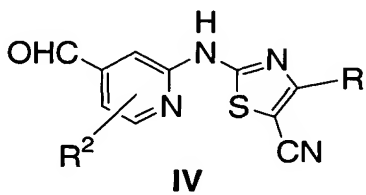


III

(where X is a halo and R² is defined above) and a phosphate in a solvent;

5

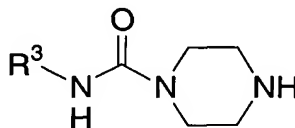
- b) adding Pd₂(dba)₃ and Xantphos to the slurry to produce a coupling product of Formula IV



IV

;

- c) adding a piperazine-urea of Formula V



V

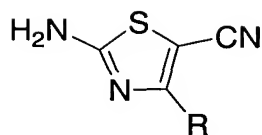
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to the coupling product of Formula IV; and

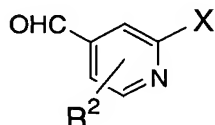
- d) completing a reductive amination to produce the compound of Formula I.

15

3. The process according to Claim 1 which comprises the steps of:
a) preparing a slurry of a compound of Formula II

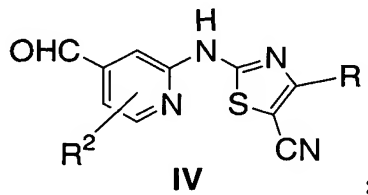
**II**

(where R is defined above), a compound of Formula III

**III**

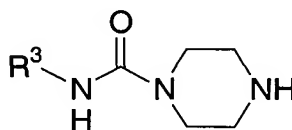
(where X is a halo and R² is defined above) and a carbonate in a solvent;

- b) adding Pd₂(dba)₃ and Xantphos to the slurry to produce a coupling product of Formula IV

**IV**

;

- c) adding a piperazine-urea of Formula V

**V**

to the coupling product of Formula IV; and

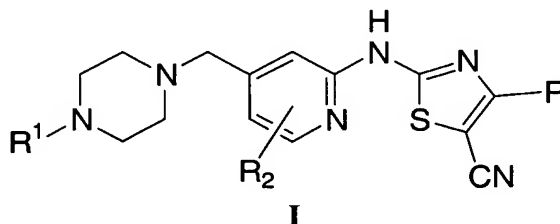
- d) completing a reductive amination to produce the compound of Formula I.

4. A process for preparing 4-[2-(5-cyano-thiazol-2-ylamino)-pyridin-4-ylmethyl]-piperazine-1-carboxylic acid methylamide which comprises the steps of:

- a) preparing a slurry of 2-chloro-4-formylpyridine, 2-aminothiazole and K_3PO_4 in toluene;
- b) adding $Pd_2(dba)_3$ and Xantphos to the slurry to produce a coupling product;
- c) adding N-methylaminocarbonylpiperazine in DMAc to the coupling product; and
- d) completing a reductive amination by adding Et_3N , acetic acid and $NaBH(OAc)_3$ to produce 4-[2-(5-cyano-thiazol-2-ylamino)-pyridin-4-ylmethyl]-piperazine-1-carboxylic acid methylamide.

5. The process according to Claim 4 which further comprises the step of adding $Pd_2(dba)_3$ and Xantphos to the slurry and heating to a temperature of about 60°C to about 100°C to produce a coupling product.

6. A process for preparing a compound of Formula I



or a pharmaceutically acceptable salt or stereoisomer thereof,
wherein

R is H, unsubstituted or substituted C_1 - C_{10} alkyl or unsubstituted or substituted aryl;

25 R^1 is $-C(=O)NR^3H$;

R^2 is

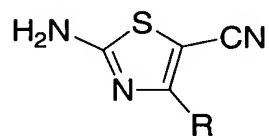
- 1) H,
- 2) OH,

- 3) OC₁-C₆ alkyl,
- 4) C₁-C₆ alkyl, or
- 5) halo; and

5 R³ is C₁-C₆ alkyl;

which comprises the steps of:

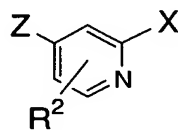
- a) preparing a slurry of a compound of Formula II



II

10

(where R is defined above), a compound of Formula III

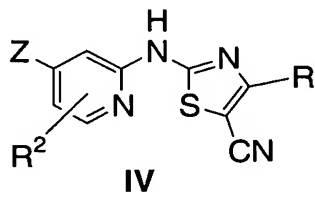


III

(where Z is CN or CO₂H; X is a halo and R² is defined above)
and a base in a solvent;

- b) adding a palladium catalyst and a bisphosphine ligand to the
slurry to produce a coupling product of Formula IV

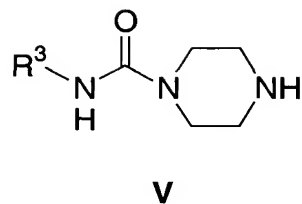
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IV

;

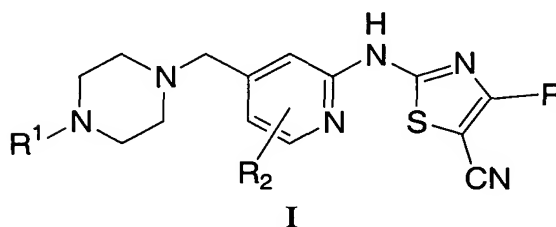
- c) reducing the coupling product of Formula IV;
- d) adding a piperazine-urea of Formula V



- to the coupling product of Formula IV; and
- e) completing a reductive amination to produce the compound of Formula I.

5

7. A process for preparing a compound of Formula I



or a pharmaceutically acceptable salt or stereoisomer thereof,
wherein

- 10 R is H, unsubstituted or substituted C₁-C₁₀ alkyl or unsubstituted or substituted aryl;

R¹ is -C(=O)NR³H;

R² is

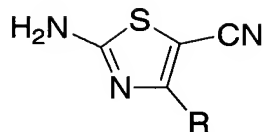
- 15 1) H,
 2) OH,
 3) OC₁-C₆ alkyl,
 4) C₁-C₆ alkyl, or
 5) halo; and

20

R³ is C₁-C₆ alkyl;

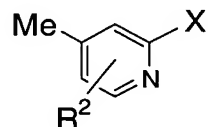
which comprises the steps of:

- a) preparing a slurry of a compound of Formula II



II

(where R is defined above), a compound of Formula III

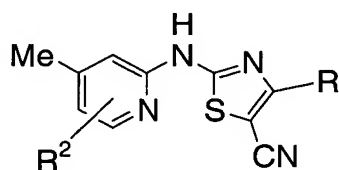


III

(where X is a halo and R² is defined above) and a base in a solvent;

5

- b) adding a palladium catalyst and a bisphosphine ligand to the slurry to produce a coupling product of Formula IV

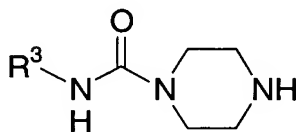


IV

;

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- c) halogenating the coupling product of Formula IV;
d) adding a piperazine-urea of Formula V



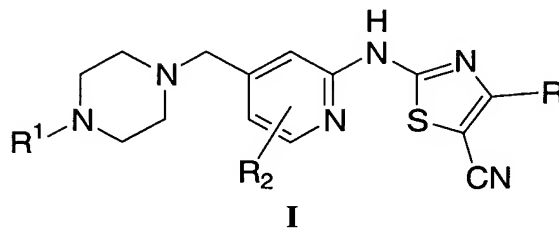
V

to the coupling product of Formula IV; and

- e) completing a reductive amination to produce the compound of Formula I.

15

8. A process for preparing a compound of Formula I



or a pharmaceutically acceptable salt or stereoisomer thereof,
wherein

5 R is H, unsubstituted or substituted C₁-C₁₀ alkyl or unsubstituted or substituted aryl;

R¹ is -C(=O)NR³H;

R² is

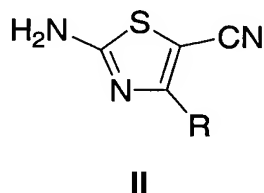
- 10 1) H,
 2) OH,
 3) OC₁-C₆ alkyl,
 4) C₁-C₆ alkyl, or
 5) halo; and

15

R³ is C₁-C₆ alkyl;

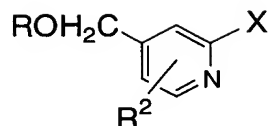
which comprises the steps of:

a) preparing a slurry of a compound of Formula II



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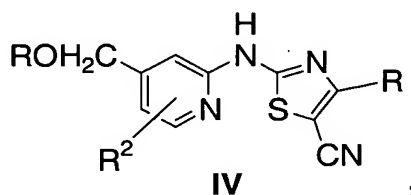
(where R is defined above), a compound of Formula III



III

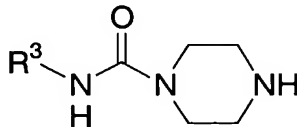
(where X is a halo and, R and R² are defined above) and a base in a solvent;

- b) adding a palladium catalyst and a bisphosphine ligand to the slurry to produce a coupling product of Formula IV



IV

- c) adding a piperazine-urea of Formula V



V

- d) to the coupling product of Formula IV; and
 completing a reductive amination to produce the compound of Formula I.

9. A process for preparing Xantphos comprising the steps of:

- a) adding MTBE, 9,9-dimethylxanthene and TMEDA to produce a solution;
 b) adding *s*-BuLi to the solution to produce a mixture;
 c) slowly adding Ph₂PCl to produce a resulting mixture;
 d) aging the resulting mixture and adding more Ph₂PCl; and
 e) filtering to isolate Xantphos.